

ECE 537

Instructor: José Luis Palacios (jpalacios@unm.edu)

This is a 3-credit graduate course that will focus on the theoretical aspects of sorting and searching in computing, with programming in a supporting role. Special attention will be given to probabilistic analysis and we will be covering some graph algorithms. The textbook will be Cormen et al., 3rd edition. We will cover chapters 5-13 and 22.

Unless otherwise stated along the semester, the course will be 100% face-to-face for those students in the main campus and remotely via Zoom for those in other locations. For students in the main campus, exams will take place in the classroom unless some accommodation has been previously arranged with the Accessibility Resource Center. For students in other locations, tests will be on line. Students are expected to complete a minimum of six hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

Important dates: Midterm 1. Tuesday September 28.

Midterm 2. Tuesday November 9.

FINAL. TBD in the week of December 13-18.

Midterm 2 and the Final will be cumulative, in the sense that the material previously covered will be assumed known, but the emphasis will be on the chapters marked above.

Grading. Homeworks: 30%; Midterms: 20% each; Final: 30%.

FINAL LETTER GRADE: Given the number of students, the distribution of numerical grades may be approximately normal. I will look at the average and the standard deviation when assigning the final letter grades.

Specific Course Policies.

1. Assignments will be handed out and collected using UNM Learn; assignments should only be submitted through Learn, not email or other means. If you are unable to submit assignments on Learn due to technical difficulties, please email me the submission on time and we will coordinate later submissions through Learn once the technical difficulties are resolved.
2. Students are responsible for turning in assignments on time. Unexcused late assignments will only be accepted by prior arrangement with the instructor before the due date/time, with significant penalties determined by this instructor. Late assignments will be accepted without penalty only in the case of documented extraordinary circumstances that make prior arrangement impossible. If you know that you will be unable to make a turn-in date due to circumstances outside of your control (e.g. illness, death in the family, etc.), please make arrangements with me either in person, by email, or by phone as soon as possible for an extension.
3. No make-up or extra credit assignments or tests will be given. If you must miss a midterm, your final exam grade will count for that midterm grade as well. (E.g.: you missed the second midterm, then the final will count for 50% of the grade)
4. Requests for regrades of assignments must be made within two weeks from when the assignment is returned. Assignments will not be regraded after that point.
5. Assignments and tests for which a regrade is sought will be regraded in their entirety. Therefore the new grade could be lower or higher than the original grade (before regrading).
6. This course falls under all UNM policies for last day to drop courses, as described at <http://www.unm.edu/studentinfo.html> and in the UNM Course Catalog. Please see the

UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenrollment dates.

7. Any requests to drop the class or change grade mode (e.g. audit, CR/NC) with instructor permission must be made on or before the last regular class meeting. Such request made after this date will not be approved except in the case of documented, extraordinary circumstances.

Academic Integrity Statement: Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Accommodations: In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Resource Center at 277-3506 for additional information.

UNM is committed to providing courses that are inclusive and accessible for all participants. As your instructor, it is my objective to facilitate an accessible classroom setting, in which students have full access and opportunity. If you are experiencing physical or academic barriers, or concerns related to mental health, physical health and/or COVID-19, please consult with me after class, via email/phone or during office hours. You are also encouraged to contact Accessibility Resource Center at arcsrvs@unm.edu or by phone 277-3506.

Title IX statement: In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see page 15 of <https://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>) requires that any report of gender discrimination that includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (<https://oeo.unm.edu>). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>

UNM Administrative Mandate on Required Vaccinations

All students, staff, and instructors are required by **UNM Administrative Mandate on Required Vaccinations** to be fully vaccinated for COVID-19 as soon as possible, but no later than September 30, 2021, and must provide proof of vaccination or of a UNM validated limited

exemption or exemption no later than September 30, 2021 to the [UNM vaccination verification site](#). Students seeking medical exemption from the vaccination policy must submit a request to the [UNM](#) verification site for review by the UNM Accessibility Resource Center. Students seeking religious exemption from the vaccination policy must submit a request for reasonable accommodation to the UNM verification site for review by the Compliance, Ethics, and Equal Opportunity Office. For further information on the requirement and on limited exemptions and exemptions, see the [UNM](#) Administrative Mandate on Required Vaccinations.

UNM Requirement on Masking in Indoor Spaces:

All students, staff, and instructors are required to wear face masks in indoor classes, labs, studios and meetings on UNM campuses, see the [masking requirement](#). Qualified music students must follow appropriate specific mask policies issued by the Chair of the Department of Music and the Dean of the College of Fine Arts. Students who do not wear a mask indoors on UNM campuses can expect to be asked to leave the classroom and to be dropped from a class if failure to wear a mask occurs more than once in that class. Students and employees who do not wear a mask in classrooms and other indoor public spaces on UNM campuses are subject to disciplinary actions. UNM will periodically evaluate and update the mask policy relative to public health conditions.

Communication on change in modality

The President and Provost of UNM may direct that classes move to remote delivery at any time to preserve the health and safety of the students, instructor and community. Please check Learn regularly for updates about our class and please check <https://bringbackthepack.unm.edu> regularly for general UNM updates about COVID-19 and the health of our community.

Acceptable masks and mask wearing in class:

A two-layer mask that covers the nose and mouth and that is cleaned regularly is acceptable, as are disposable medical masks, KN95, KF94, FFP1 and FFP2 masks. A face shield is not sufficient protection. It is vital that you wear your mask correctly, covering your nose and mouth. Removing your mask for an extended period to eat or drink in class violates the university mask requirement and endangers others.

Consequences of not wearing a mask properly: If you don't wear a mask, or if you do not wear a mask properly by covering your nose and mouth, you will be asked to leave class. If you fail to wear a mask properly on more than one occasion, you can expect to be dropped from the class. If you insist on remaining in the classroom while not wearing a mask, class will be dismissed for the day to protect others and you will be dropped from the class immediately. The instructor will try to have a few disposable masks available on a first-come, first-served basis.

Student Learning Outcomes:

At the end of this course I expect students to have a firm understanding of searching, sorting and the probabilistic analysis and complexity of the algorithms studied in the course. Students should also be proficient in programming these algorithms.

Citizenship and/or Immigration Status:

All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: <http://undocumented.unm.edu/>.

Land Acknowledgement:

Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

Support in Receiving Help:

Students who ask for help are successful students. I encourage students to be familiar with services and policies that can help them navigate UNM successfully. Many services exist to help you succeed academically, such as [peer tutoring](#) at CAPS and <http://mentalhealth.unm.edu>. There are plenty of ways to find your place and your pack at UNM: see the "student guide" tab on [my.unm](#), [students.unm.edu](#), or ask me for information about the right resource center or person to contact.

Doing the Right Thing:

UNM has policies to preserve and protect you and the academic community available in the [Student Pathfinder](#) as well as in the Faculty Handbook. These include policies on student grievances [D175](#) (undergraduates) and [D176](#) (graduate and professional students), academic dishonesty ([D100](#)), and respectful campus ([CO9](#)). Please ask for help in understanding and avoiding plagiarism (passing the work or words of others off as your own work or words) or other forms academic dishonesty. Doing something dishonest in a class or on an assignment can lead to serious academic consequences. Come talk with me about your concerns or needs for academic flexibility or talk with support staff at one of our [student resource centers](#) before you do something that may endanger your career.